

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/056209 A1

(51) International Patent Classification⁷: **B21D 13/02,**
B29C 53/28

(21) International Application Number:
PCT/RU2003/000550

(22) International Filing Date:
11 December 2003 (11.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicants (for all designated States except US):
"AIRBUS" [FR/FR]; 1 Rond Point Maurice Bel-
lonte, F-31707 Blagnac Cedex (FR). OTKRYTOE
AKTSIONERNOE OBSHESTVO "KAZANSKY
NAUCHNO-ISLEDOVATELSKY INSTITUT AVIAT-
SIONNOI TEKHNologii" [RU/RU]; ul. Dementieva,
2v, Kazan, 420036 (RU).

(72) Inventors; and

(75) Inventors/Applicants (for US only): AKISHEV, Niaz
Irekovich [RU/RU]; ul. Kulahmetova, 18-29, Kazan,

420033 (RU). ZAKIROV, Ildus Muhametgaleevich
[RU/RU]; ul. Vishnevskogo, 10-24, Kazan, 420043 (RU).
NIKITIN, Alexandr Vladimirovich [RU/RU]; ul. S.Hal-
turina, 11/10-60, Kazan, 420032 (RU).

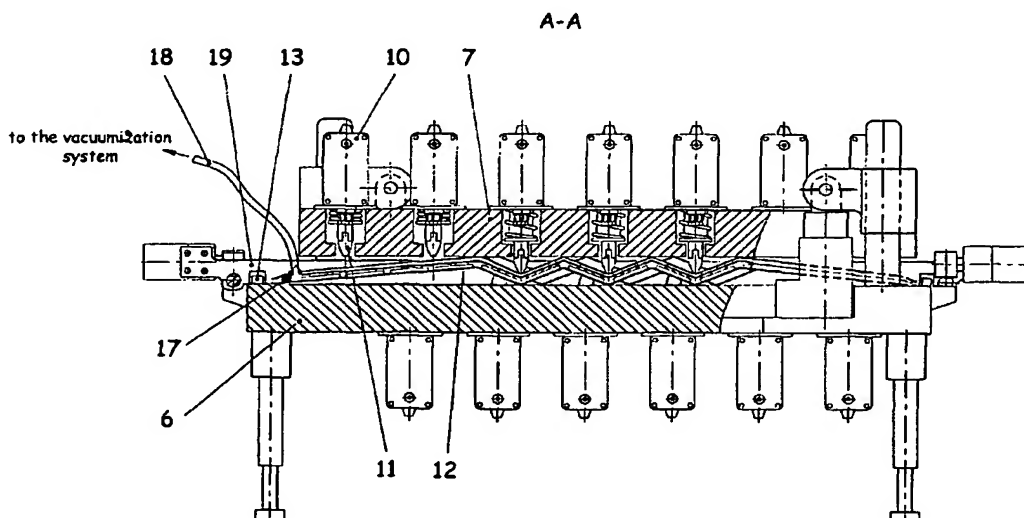
(74) Agent: VOSTRIKOV, Gennadi Fedorovich; Leningrad-
sky pr., 47-3-215, Moscow, 125167 (RU).

(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: DEVICE FOR SHEET MATERIAL CORRUGATION



(57) Abstract: The device contains the transformable mandrel (12) made of plane elements (14) pivotedly connected in-between with the use of gas-proof fabric (15,16), the means for preliminary and final mandrel transformation including the flexible vacuum chamber and traverse-pusher (11) with the drive (10), and the mechanism for putting the transformable mandrel into its initial plane state made in the form of two parallel slabs (6, 7) with the drive for their reciprocal travel (9). The means for preliminary mandrel transformation is made in the form of the system of pushers placed in rows on the lower and the upper slabs with individual drives. The perforations in the slabs provide the possibility for the pushers to interact with the transformable mandrel placed between the slabs whereas the mandrel with sheet blank article is put into the vacuum chamber.



Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.